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SUMMARY

of the

REPORT ON THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION

of

NEW ZEALAND

(The full text of the report (in English only) is contained in document FCCC/IDR.1/NZL)

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Summary[1]

1. The in-depth review was carried out during the period June to November 1995 and included a visit by the team from 3 to 7 July 1995. The team included experts from Sri Lanka, Slovakia and the United Kingdom of Great Britain and Northern Ireland. It concluded that the New Zealand communication generally followed the format and requirements of the guidelines, but additional information obtained during the review helped improve the transparency.

2. New Zealand has adopted a net approach to carbon dioxide (CO_2), adding emissions by sources and uptakes by sinks (planted forests). Its target is to stabilize net emissions at 1990 levels by 2000. This is to be achieved with a 20 per cent contribution from reductions of CO_2 emissions relative to a rising baseline, and an 80 per cent contribution from sink enhancement. The team noted that the proportion of the various gases in emissions and the situation with regard to carbon sinks in forests are very different from those of other Annex I Parties, owing to natural circumstances and economic structure. Based on the most recent global warming potentials (GWPs), methane (CH_4) emissions, basically from agriculture, represent 57 per cent of the gross greenhouse gas (GHG) emissions in New Zealand's inventory for 1990, CO_2 33 per cent and nitrous oxide (N_2O) less than 10 per cent.

3. CO_2 emissions per capita (8 tons) are relatively low compared with the average in countries of the Organisation for Economic Co-operation and Development (OECD) (approximately 12 tons). Energy prices are generally low through a combination of low-cost indigenous energy sources and nil or low taxation levels on liquid, including transport, fuels. Although total taxation on gasoline makes up almost 50 per cent of the final price, gasoline prices, in particular, are low compared with most OECD countries. This may be relevant to the rising level of transport sector emissions, which constitute the largest component of the CO_2 inventory.

4. New Zealand, with 3.5 million inhabitants, has a small economy very dependent on import and export. It has a diverse energy base and relatively high utilization of renewable energy sources, and is self-sufficient in energy except for liquid fuels. The manufacturing industry benefits from that energy base, and is also based to a large extent on the products of agriculture, fisheries, and forestry. New Zealand has been through a major restructuring of the economy which has had and is expected to continue to have consequences for emissions. Important aspects are abolition of subsidies in all sectors including agriculture, deregulation, privatization, enhanced competition and streamlining of the public sector. Deregulation and restructuring in the electricity sector are expected to be particularly important, although the implications for emissions are not yet clear. As an example, if mitigation was not a condition

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[1] In accordance with decision 2/CP.1, the full draft of this report was communicated to the Government of New Zealand, which had no further comments.

of the resource consent, adding a 400 MW gas-fired power station could increase national emissions by 5 per cent. The growth rate of gross domestic product (GDP) is now at a record high (6 per cent in 1994) by historical standards, following a period of low growth.

5. There is considerable sequestration of carbon in planted forest, which now covers 5 per cent of the country's area (1.4 million ha). New Zealand sees enhancement of carbon sinks in forests as an important, but nevertheless transitional, way of mitigating climate change, as sequestration of carbon at the present level could take place over a maximum of 50-100 years. These forests are monocultures and particularly well monitored, although estimates of carbon content and annual increment have been significantly revised since the communication was submitted. The high level of present sequestration is due to the fact that the age-class of trees is young and to increased planting on land previously used for sheep and beef farming, stimulated by the economic reforms.

6. The team noted in particular the uncertainties associated with indigenous forest carbon storage levels (in both directions) together with the main influences in any changes in carbon stored. These are pest-induced (notably possums, goats and deer) deforestation (an emission) and regeneration (an absorption). Indigenous forests are largely protected, and at present cover 23 per cent (6.2 million ha) of the country's area and have 3-4 times higher carbon stock per hectare and possibly 10-15 times as high total storage as the planted forest. The Government is seeking to combat the severe threat to parts of the indigenous forest estate, for a range of policy reasons. Any loss of forest or regeneration will have implications for total future carbon balances. No projections are given for natural forests because of the lack of data in this area.

7. CO_2 emissions are projected to grow by 14-17 per cent from 1990 to 2000 with 2-3 per cent growth in GDP if the CO_2 programmes are on track, while sequestration in planted forest is expected to return to approximately 1990 levels by 2000. The revision of the planted forest inventory for 1990 reflects a higher sequestration in the base year, and revised projections based on an improved model with the same assumptions show an absorption of 18.6 Mt CO_2 in 2000 compared to 17.7 Mt in 1990, or a considerably slower acceleration of sequestration than was originally reported (25.5 as against 16.7 Mt CO_2). New Zealand now expects that carbon sequestration will equal CO_2 emissions perhaps by 2010, and that a return to 1990 levels could be achieved sometime after 2000. If the CO_2 programme is not seen as being on track by 1997, the Government has announced its intention to introduce a low level carbon charge by the end of that year.

8. Methane (CH_4) emissions are expected to remain the dominant GHG in New Zealand. They follow development in the agricultural sector and have been slightly declining through the 1990s. Emissions from ruminants could increase from around 1998, but current modelling suggests that CH_4 emissions will be below 1990 levels in 2000. Emissions of N_2O and perfluorocarbons (PFCs) are not expected to increase.

9. Since the communication was submitted, voluntary agreements have been signed between the Government and major companies in the energy and industry sectors. An energy saver fund of $NZ 18 million over five years has been set up for residential sector energy efficiency projects, and New Zealand has acquired more experience with its energy efficiency programmes, where the central coordinating body was set up in 1992. The Government has also used the Resource Management Act to intervene in a major project in the electricity sector. In August 1995, the Government set up a new working group on CO_2 policy to analyse the appropriateness of such a case-by-case approach, the impacts of the high economic growth, development of carbon sinks and reservoirs and the efficiency of a carbon charge in comparison with other economic instruments, such as tradable permits, as the next part of the policy response.

10. New Zealand is contributing more than twice its assessed share to the replenishment of the Global Environment Facility (GEF) for 1994-1996. It did not contribute to the pilot phase. The contribution is in addition to its official development assistance (ODA), which in 1993 was 0.25 per cent of GDP according to the OECD Development Assistance Committee statistics. Activities relevant to the UNFCCC are concentrated in the Asia and South Pacific region. The team also noted that substantial technology transfer occurs through overseas activities of New Zealand private companies.

11. New Zealand recognizes that, given its location, it has special responsibilities for monitoring climate change. The scientific community has made a relatively comprehensive assessment of the impacts of climate change on New Zealand and this work continues. Some of New Zealand ecosystems and economic sectors are vulnerable to climate change. Under the Resource Management Act, guidance is given to local communities on adaptation to sealevel rise. A need for a more comprehensive strategy on adaptation is recognized. New Zealand has established regular consultations with non-governmental organizations, some of which participate in the public sector/private sector working group on carbon dioxide policy.

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